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10/825,030	04/14/2004	David Cheng-Song Qi	2386.2026-000	7381

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EXAMINER	
MAHMOUDZADEH, NIMA	

ART UNIT	PAPER NUMBER
2619	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/825,030	QI ET AL.	
	Examiner	Art Unit	
	NIMA MAHMOUDZADEH	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's amendment filed on 10/11/2007 has been entered. Claim 1-40 are still pending in this application, with claims 1, 14, 27, and 40 being independent.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1- 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walker et al. (US Patent Application Pub No. 2003/0193696) in view of LeBlanc (US Patent Application Pub No.2002/0080730).

Regarding claim 1, Walker et al teach a method for eliminating false voice detection in Voice Over Internet Protocol (VOIP) service supporting a voice band data mode and a voice mode, the method comprising:

In voice band data mode, enabling silence detection and disabling voice detection from detecting a voice band signal associated with a VOIP call; monitoring the voice band signal for silence (Paragraph [0059], to expand a little more, see Fig. 3a and Fig. 3b which disclose state diagram of transitioning of media gateway between voice and data. Initially all communication starts as voice so silence detection is inactive consequently voice which is absence of silence is active as well, in other word, when voice is inactive, Voice Band Data detection is going to be active and consequently silence detection is going to be active and voice detection which is absence of silence is going to be inactive);

in response to detecting silence for a predetermined length of time, enabling voice detection (it is noted when a media gateway transitions back to voice mode, it has been monitored for silence, see page 5, paragraph [0059]).

Walker et al. fails to teach if voice detection is enabled, monitoring the voice band signal for voice; and in response to detecting voice, terminating voice band data mode and entering voice mode.

However, LeBlanc teaches if voice detection is enabled, monitoring the voice band signal for voice; and in response to detecting voice, terminating voice band data mode and entering voice mode. (Page 3, paragraph [0034] refers to Fig. 4 which

disclose voice detection is active in the voice band data mode and if voice is detected, the resource manager de-activated the voice detector and switch over to voice mode communication)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Regarding claim 2, Walker et al teach the method according to Claim 1 wherein, if the silence detected is shorter than the predetermined length of time, continuing in voice band data mode and disabling voice detection. (It is noted if the silence is detected for less than 7 seconds, data will not transmit back to voice mode. see page 5, paragraph [0059]);

Regarding claim 3, Walker et al teach the method according to Claim 1 wherein, if voice detection is enabled, in an absence of detecting voice, continuing in voice band data mode. (See page 5, paragraph [0059]);

Regarding claim 4, Walker et al teach the method according to Claim 1 wherein detecting silence includes terminating the voice band data mode if silence exceeds a second predetermined length of time. (See page 5, paragraph [0059]);

Regarding claim 5, Walker et al teach the method according to Claim 4 wherein the second predetermined length of time is at least two seconds. (See page 5, paragraph [0059]);

Regarding claim 6, Walker et al teach the method according to Claim 1 wherein detecting silence includes detecting silence in a bi-directional manner. (Fig. 3a)

Regarding claim 7, Walker et al teach the method according to Claim 6 wherein enabling voice detection occurs in response to detecting silence for at least about 250 msec. (It is noted when silence is more than predetermined length voice mode is activated. see page 5, paragraph [0059]);

Regarding claim 8, Walker et al. teach the method according to Claim 1 further including disabling echo cancellation in voice band data mode and enabling echo cancellation in voice mode. (It is noted when voice services is requested echo cancellation should be present. page 1, paragraph [0002])

Regarding claim number 9, Walker et al teach the method according to Claim 1 operating in a gateway. (FIG.1 and Fig.2)

Regarding claim 10, Walker et al teach the method according to Claim 9 wherein the gateway is a terminating gateway. (FIG.1, 14b)

Regarding claim 11, Walker et al teach the method according to Claim 9 wherein the gateway is an originating gateway. (FIG.1, 14a)

Regarding claim 12, Walker et al teach the method according to Claim 1 operating external from a gateway. (It is noted that all the call signaling and control functionality is done in a media gateway controller. See page 1, paragraph [0002] line 11)

Regarding claim 13, Walker et al teach the method according to Claim 12 operating between the terminating gateway (Fig. 1, 14b) and an answering modem. (FIG.1, 12b)

Regarding claim 14, Walker et al. teach an apparatus for eliminating false detection in a Voice Over Internet Protocol (VOIP) service supporting a voice band data mode and a voice mode, the apparatus comprising:

a communications bus carrying voice band signals associated with a VOIP call(Bold arrow. Fig.3a. Also Fig. 1 communication link between media gateway 14b and the network);

a silence detector (Fig. 3a, “Voice Data Band” mode selected by detecting silence utilizing the media gateway) coupled to the communications bus adapted to (i) detect silence on the bus and (ii) enable in voice band data mode; (FIG3a, (2), “Voice Data Band” mode selected by detecting silence utilizing the media gateway connected to the IP network)

a voice detector (Fig. 3a, “Voice” detection is done by media gateway) coupled to the bus (Fig. 3a, “Voice” detection is done by media gateway which is connected to the IP netwrok) adapted to (i) detect voice on the bus (Fig. 3a, “Voice” detection is done by media gateway which is connected to the IP network), (ii) initially disable the detection of the voice band signals in voice band data mode, (Fig. 3a, (14) and also see paragraph [0009] which discloses that initially the call is established as voice call) (iii) enable in response to the silence detector's detecting silence for a predetermined length of time (Paragraph [0059] specifically discloses silence detection for predetermined period of time of silence), and (iv) monitor the voice band signals after being enabled (Fig. 3a, Voice mode); and Walker et al. fails to teach a processor, coupled to the silence detector and the voice detector, that terminates voice band data mode and enters voice mode in response to the voice detector's detecting voice on the communications bus.

However, LeBlanc teaches a processor, coupled to the silence detector and the voice detector that terminates voice band data mode and enters voice mode in response to the voice detector's detecting voice on the communications bus (Page 3, paragraph [0034] line 12).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Regarding claim 15, Walker et al. teach the apparatus according to Claim 14 wherein the processor continues in voice band data mode if the silence detector detects silence for less than the predetermined length of time (Fig. 3a, (8))

Regarding claim 16, Walker et al. teach the apparatus according to Claim 14 wherein, if the voice detector is enabled, the processor disables the voice detector and continues in voice band data mode in an absence of an indication from the voice detector that voice is detected. (It is noted that when no voice is detected Voice Band Data mode is active, Fig. 1 and Fig. 3a)

Regarding claim 17, Walker et al. teach the apparatus according to Claim 14 wherein, if the silence detector detects silence for a second predetermined length of time, the processor terminates the voice band data mode. (It is shown that there are two predetermined times 200ms and 7s. Fig. 3a, (8))

Regarding claim 18, Walker et al. teach the apparatus according to Claim 17 wherein the second predetermined length of time is at least two seconds. (As shown in Fig. 3a, (8), there are two predetermined time set)

Regarding claim19, Walker et al. teach the apparatus according to Claim 14 wherein the silence detector detects silence on the communications bus in a bi-directional manner. (Fig. 3a, “Voice Band Data”)

Regarding claim 20, Walker et al. teach the apparatus according to Claim 19 wherein the voice detector enables in response to the silence detector's detecting silence for at least two seconds. (Fig. 3a, (8))

Regarding claim 21, Walker et al. teach the apparatus according to Claim 14 further including an echo canceller disabled in voice band data mode and enabled in voice mode. (It is noted when voice services is requested echo cancellation should be present. Page 1, paragraph [0002])

Regarding claim 22, Walker et al. teach the apparatus according to Claim 14 deployed in a gateway. (Fig. 1 , 14a or 14b)

Regarding claim 23, Walker et al. teach the apparatus according to Claim 22 deployed in a terminating gateway. (Fig. 1,14b)

Regarding claim 24, Walker et al. teach the apparatus according to Claim 22 deployed in an originating gateway. (Fig. 1 , 14a)

Regarding claim 25, Walker et al. teach the apparatus according to Claim 14 deployed external from a gateway. (It is shown that all the call signaling and control functionality is done in a media gateway controller. See page 1, paragraph [0002] line 11)

Regarding claim 26, Walker et al. teach the apparatus according to Claim 25 deployed between the terminating gateway (Fig. 1, 14b) and an answering modem (Fig. 1, 12b).

Regarding claim 27, Walker et al teach a computer-readable medium having stored thereon sequences of instructions, the sequences of instructions, when executed by a digital processor, cause the processor to:

for a Voice Over Internet Protocol (VOIP) call, enable silence detection and disable voice detection from detecting a voice band signal in voice band data mode (Fig. 3a, "Voice Band Data" mode selected by detecting silence utilizing the media gateway);

monitor a voice band signal associated with the VOIP call for silence (Fig.3a, (8));

in response to detecting silence for a predetermined length of time (Fig.3a, (8)), enable voice detection (Silence detected more than certain amount of time, which in result media gateway transition back to voice mode. See page 5, paragraph [0059]); Walker et al. fails to teach if voice detection is enabled, monitor the voice band signal for voice;

and in response to detecting voice, terminate voice band data mode and enter voice mode.

However, LeBlanc teaches if voice detection is enabled, monitor the voice band signal for voice;

and in response to detecting voice, terminate voice band data mode

and enter voice mode. (Page 3, paragraph [0034] line 12)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Regarding claim 28, Walker et al teach the computer-readable medium according to Claim 27 wherein the sequences of instructions cause the processor to continue in voice band data mode and disable voice detection if the silence detected is shorter than the predetermined length of time. (Depending on silence detection predetermined time period. Fig. 3a, (8));

Regarding claim 29, Walker et al. teach the computer-readable medium according to Claim 27 further including instructions to cause the digital processor to continue in voice band data mode in an absence of detecting voice if voice detection is enabled. (Disabling transition to Voice mode if silence detected. Fig. 3a, (2));

Regarding claim 30, Walker et al. teach the computer-readable medium according to Claim 27 wherein the instructions that cause the processor to detect silence include instructions that cause the processor to terminate the voice band data mode if silence exceeds a second predetermined length of time. (See page 5, paragraph [0059]);

Regarding claim 31, Walker et al teach the computer-readable medium according to Claim 30 wherein the second predetermined length of time is at least two seconds. (Fig. 3a, (8));

Regarding claim 32, Walker et al teach the computer-readable medium according to Claim 27 wherein the instructions that cause the processor to detect silence include instructions that cause the processor to detect silence in a bi-directional manner (Fig. 3a, "Voice Band Data").

Regarding claim 33, Walker et al. teach the computer-readable medium according to Claim 32 wherein the instructions that Cause the processor to detect silence include instructions that enable voice detection in response to detecting silence for at least about 250 msec. (See page 5, paragraph [0059] and Fig. 3a (8));

Regarding claim 34, Walker et al. teach the computer-readable medium according to Claim 27 further including instructions that cause the processor to disable echo cancellation in voice band data mode and enable echo cancellation in voice mode (Page 1, paragraph [0002]).

Regarding claim 35, Walker et al. teach the computer-readable medium according to Claim 27 used in a gateway (Fig. 2, 15a).

Regarding claim 36, Walker et al teach the computer-readable medium according to Claim 35 wherein the gateway is a terminating gateway (Fig. 1, 14b).

Regarding claim 37, Walker et al teach the computer-readable medium according to Claim 35 wherein the gateway is an originating gateway (Fig. 1, 14a).

Regarding claim 38, Walker et al teach the computer-readable medium according to Claim 27 used in a network device external from a gateway. (Sheet 1,Fig.1)

Regarding Claim 39, Walker et al. teach the computer-readable medium according to Claim 38 wherein the network device external from a gateway operates between a terminating gateway and an answering modem (It is noted that all the call signaling and control functionality is done in a media gateway controller. See page 1, paragraph [0002] line 11).

Regarding claim 40, Walker et al. teach an apparatus for eliminating false detection in a Voice Over Internet Protocol (VOIP) service supporting a voice band data mode and a voice mode, the apparatus comprising (it is noted when a media gateway transitions back to voice mode, it has been monitored for silence, see page 5, paragraph [0059]):

means for monitoring a voice band signal associated with the VOIP call for silence;

means for enabling voice detection in response to detecting silence for a predetermined length of time; (See page 5, paragraph [0059]); and

means for monitoring the voice band signal for voice if voice detection is enabled;

means for terminating voice band data mode and entering voice mode in response to detecting voice (Page 5, paragraph [0059]);

Walker et al. failed to teach means for enabling silence detection and disabling voice detection from detecting a voice band signal for a VOIP call in voice band data mode. However, LeBlanc teaches means for enabling silence detection and disabling voice detection for a VOIP call in voice band data mode (Page 3, paragraph [0034] discloses voice detection incase detected switch over to voice).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to include the feature of switching between Voice Band Data mode and Voice mode taught by LeBlanc into method of Walker et al. in order to increase the precision.

Response to Arguments

Applicant's arguments filed 10/11/2007 have been fully considered but they are not persuasive.

On page 8 and 9 of the Applicant's response, Applicant argued that Walker do not disclose "disable voice detection from detecting a voice band signal" of claim 1. The Examiner respectfully disagrees. As disclosed on Paragraph [0059], to expand a little more, see Fig. 3a and Fig. 3b state diagram of transitioning of media gateway between

voice and data. Initially all communication starts as voice so silence detection is inactive consequently voice which is absence of silence is active as well, in other word, when voice is inactive, Voice Band Data detection is going to be active and consequently silence detection is going to be active and voice detection which is absence of silence is going to be inactive.

On page 9 the Applicant's response, Applicant argued that Leblanc do not disclose "in voice band data mode, enabling silence detection and disabling voice detection from detecting a voice band signal associated with a VOIP call" of claim 1. The Examiner respectfully disagrees. As disclosed on paragraph [0034] refers to Fig. 4 voice/silence detection is active in the voice band data mode and if voice is detected, the resource manager de-activated the voice/silence detector and switch over to voice mode communication.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIMA MAHMOUDZADEH whose telephone number is (571)270-3527. The examiner can normally be reached on Monday - Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NIMA MAHMOUDZADEH/
Examiner, Art Unit 2619

/Chirag G Shah/
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